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On the Jupiter Evection Term. By P. H. Cowell, M.A., F.R.S.

In *Monthly Notices*, vol. lxiv. p. 417, and again in vol. lxv. p. 145, I have shown that the observed value of the coefficient of the Jupiter Evection term in the Moon's longitude was 0″·89 + 0″·23 = + 1″·12.

In an interesting paper in the *Astronomical Journal*, No. 592, Professor Newcomb states that he has calculated the theoretical coefficient of this term as 1″·15, whereas Hill and Radau had previously agreed in giving 0″·89.

The removal of the only serious discordance between observed and theoretical coefficients for short terms of a period clearly differing from the periods of possible errors of observation strengthens the case stated in the *Monthly Notices*, vol. lxvi. p. 306, for Le Verrier's mass of Venus against the recent reduction by 2 per cent.

Observations of Minor Planets from Photographs taken with the 30-inch Reflector of the Thompson Equatorial at the Royal Observatory, Greenwich, during the year 1905.

(*Communicated by the Astronomer Royal.*)

The following positions of minor planets were obtained from photographs taken with the 30-inch Reflector during the year 1905.

The plates were measured with the astrographic micrometer. Four reference stars were, as a rule, measured with the planet, their positions being derived when possible from the Catalogues of the Astronomische Gesellschaft.

The positions given are not corrected for Parallax.

log Parallax Correction = log Parallax Factor − log Δ.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
d	h m s	h m s	° ′ ″		
		(407) Arachne.			
Jan. 10	10 30 43	5 51 53·74	+27 14 9·3	−7·556	+0·554
		(78) Diana.			
Jan. 17	11 42 14	6 23 31·99	+35 8 29·1	+9·105	+0·410
		(71) Niobe.			
Jan. 17	11 25 46	7 44 5·90	+35 56 50·1	−8·785	+0·372

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(270) Anahita.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
d	h m s	h m s	° ′ ″		
Jan. 17	11 58 24	8 43 15·76	+15 5 32·2	−8·978	+0·719

(374) Burgundia.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Mar. 9	10 50 3	9 58 16·04	−0 34 10·9	−∞	+0·839

(148) Gallia.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Feb. 25	12 29 16	10 20 12·02	+16 14 45·7	+8·697	+0·704
Mar. 2	10 30 5	10 16 17·94	+17 11 47·3	−9·037	+0·698
3	10 51 44	10 15 30·60	+17 23 7·7	−8·824	+0·692

(92) Undina.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Feb. 25	12 4 23	11 45 1·98	+15 6 36·7	−9·113	+0·722
Mar. 2	10 45 0	11 41 46·68	+15 37 31·9	−9·330	+0·731
3	11 16 48	11 41 4·70	+15 43 48·2	−9·206	+0·720
22	9 46 25	11 27 30·85	+17 22 50·4	−9·218	+0·704
30	9 19 27	11 22 9·74	+17 50 55·2	−9·176	+0·697

(487) Venetia.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Mar. 30	10 11 41	11 52 23·75	+15 51 57·3	−9·058	+0·713
Apr. 6	10 22 35	11 47 13·59	+16 19 36·8	−8·635	+0·703

(350) Ornamenta.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Apr. 6	10 50 45	11 48 42·65	+37 35 59·9	−∞	+0·316
8	10 11 58	11 47 19·90	37 32 3·4	−8·765	+0·326
12	11 23 18	11 44 42·39	37 20 46·8	+9·076	+0·348

(42) Isis.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Mar. 22	10 13 9	12 10 56·26	+13 13 28·9	−9·271	+0·747
27	10 8 24	12 6 13·42	+13 40 45·4	−9·198	+0·739
30	10 33 27	12 3 24·23	+13 55 16·5	−8·982	+0·730
Apr. 5	10 56 56	11 57 57·41	+14 19 12·7	−8·062	+0·723

(28) Bellona.

Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Dec.
Mar. 22	10 22 59	12 20 39·52	+8 0 10·9	−9·264	+0·786
27	10 23 28	12 16 52·64	+8 40 53·4	−9·174	+0·779
30	10 50 22	12 14 37·46	+9 3 40·2	−8·937	+0·773
Apr. 6	9 55 29	12 9 41·22	+9 49 57·2	−9·083	+0·768

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Date and G.M.T. 1905. d	h m s	Apparent R.A. h m s	Apparent Dec. ° ′ ″	Log. Parallax Factor. R.A.	Dec.
		(163) Erigone.			
May 5	10 5 42	12 52 32·41	+0 12 13·1	+7·982	+0·834
8	10 56 51	12 51 6·68	+0 20 43·5	+9·042	+0·835
		(334) Chicago.			
May 5	10 53 54	13 58 6·56	−5 37 36·8	−8·285	+0·867
		(26) Proserpina.			
May 5	11 21 37	14 31 33·43	−14 29 8·0	−8·448	+0·903
8	11 44 35	14 28 49·23	−14 21 29·2	+8·518	+0·903
9	11 7 42	14 27 57·02	−14 19 2·8	−8·296	+0·903
10	10 44 38	14 27 4·98	−14 16 37·0	−8·693	+0·902
22	10 58 57	14 17 34·27	−13 51 6·5	+8·827	+0·900
		(386) Siegena.			
June 23	10 36 6	15 42 6·50	+7 31 19·4	+8·980	+0·785
26	12 2 16	15 40 42·39	+7 22 5·6	+9·373	+0·796
27	11 39 4	15 40 17·57	+7 18 46·5	+9·326	+0·794
		(470) Kilia.			
June 28	10 34 23	16 49 24·46	−9 41 11·3	+8·210	+0·885
		(8) Flora.			
June 14	11 51 44	17 51 37·82	−19 9 15·0	−8·711	+0·917
14	12 3 17	17 51 37·21	−19 9 15·8	−8·506	+0·920
19	11 37 25	17 45 59·09	−19 19 14·0	−8·507	+0·918
19	11 50 27	17 45 58·59	−19 19 17·4	−7·962	+0·918
22	11 18 9	17 42 34·77	−19 25 30·8	−8·580	+0·918
		(19) Fortuna.			
June 23	11 31 16	18 26 4·32	−21 1 20·8	−8·920	+0·920
26	12 27 11	18 22 55·60	−21 2 1·4	+8·575	+0·922
July 7	10 45 15	18 11 39·00	−21 4 32·8	−8·648	+0·922
		(478) Tergeste.			
July 8	10 41 51	18 26 58·15	−9 45 53·6	−8·810	+0·885

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Date and G.M.T. 1905.		Apparent R.A.	Apparent Dec.	Log. Parallax Factor. R.A.	Log. Parallax Factor. Dec.
d	h m s	h m s	° ′ ″		
		(46) Hestia.			
June 23	11 4 54	18 50 12·05	−18 58 12·3	−9·214	+0·908
July 7	11 7 31	18 36 36·14	−19 12 8·4	−8·674	+0·917
8	11 6 43	18 35 37·64	−19 13 19·4	−8·608	+0·918
25	10 19 33	18 20 59·57	−19 36 26·0	+8·229	+0·919
		(313) Chaldæa.			
July 7	11 34 45	19 5 7·92	−5 16 15·9	−8·667	+0·865
19	11 59 11	18 53 55·98	−6 0 58·0	+8·934	+0·868
25	11 11 53	18 48 54·29	−6 29 32·3	+8·749	+0·871
		(433) Eros.			
July 19	13 18 52	21 25 5·15	−13 49 49·5	−8·471	+0·901
Aug. 23	9 31 50	20 24 9·19	−12 33 0·5	−8·874	+0·895
		(176) Idunna.			
Sept. 7	11 26 34	21 30 4·67	+12 16 26·9	+9·001	+0·746
		(248) Lameia.			
Sept. 7	12 0 35	21 53 7·36	−5 44 6·8	+9·062	+0·866
		(84) Clio.			
Sept. 8	12 16 24	22 37 56·92	−2 27 38·5	+8·882	+0·850

The anonymous planet discovered on photographs taken on 1903 Aug. 6, 31 and Sept. 1 has received the designation 1903 LX^a, and a provisional circular orbit has been calculated for it by Professor Kreutz (*Astron. Nachr.*, No. 4154).

Royal Observatory, Greenwich:
1907 *March* 7.

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A New Nebula. By the Rev. T. E. Espin, M.A.

On January 18, while looking for new double stars, I came across a bright nebula, which, as far as I am aware, is an unrecorded object. It was estimated to be about 5″ in diameter and elongated north. On January 27 the nebula was seen for a few moments between clouds. On February 1 it was well seen, a conspicuous object, and equal to a 10 magnitude star. The elongation was very marked, and sometimes it looked like two nebulæ. The measures gave—

	″
Major Axis	6·90
Minor Axis	6·35

The major axis was found to be roughly at position 10°·5. A small star was noted S*p*. On February 11 the position was determined from B.D + 33°,746. It was found to precede this star by $7^{s}\cdot80$, and to be 2′ 25″ south of it. On February 18 what appeared to be a star or nucleus was seen north and measured. It was also seen on February 22 and February 23, and measures made of it with great difficulty. The later observations seem to suggest a planetary nebula, with a small star at the northern edge. The following are my measures of the two stars near the nebula:—

Neb. and star A:—

		°	″		
	1907·1314	P 14·9	D 4·10		Mag. 13·0
	1424	13·3	4·75		
	1451	13·3	3·90		
Mean	1907·140	13·8	4·25	3 nts.	

Neb. and star B:—

	1907·0849	244·6	16·75		Mag. 12·0
	1314	244·3	17·05		
	1424	245·3	15·90		
	1451	238·4	17·05		
Mean	1907·126	243·1	16·69	4 nts.	

The place of B.D + 33°·746 for 1855·0 is—

$\alpha = 3^{h}\,47^{m}\,14^{s}\cdot89 \qquad \delta = 33^{\circ}\,29'\,14''\cdot7$ (*Bonn Obs.*, vol. vi.)

Professor Burnham observed the nebula with the 40-in. of the Yerkes Observatory on February 20 in moonlight and a sky not clear, and measured the star B as follows:—

P 238°·1 D 17″·86

and also found for B.D + 33°·746 and neb.

P 213°·9 D 177″·87 single distance.